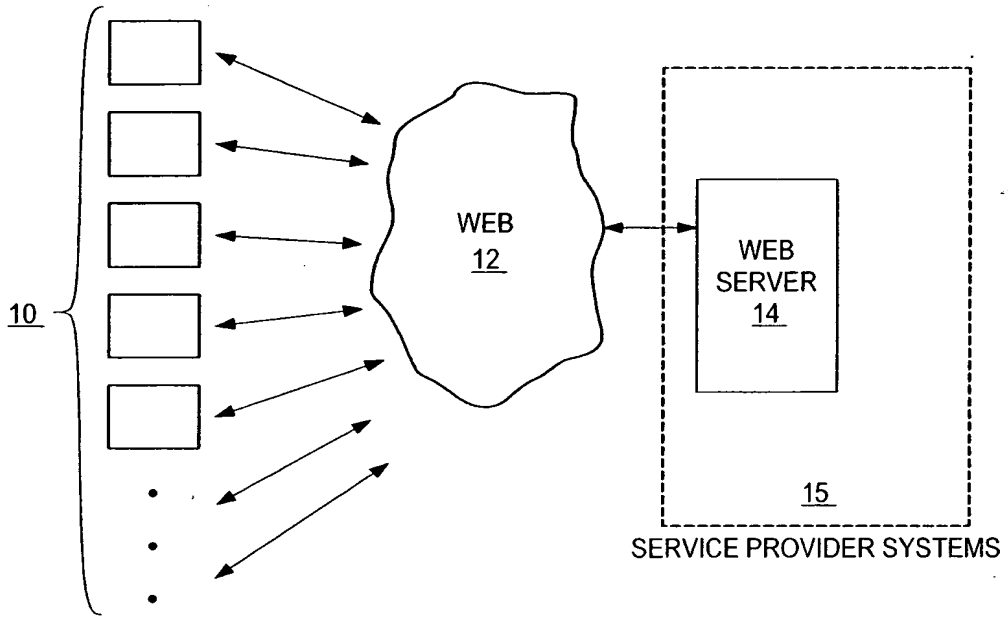

FIG. 1

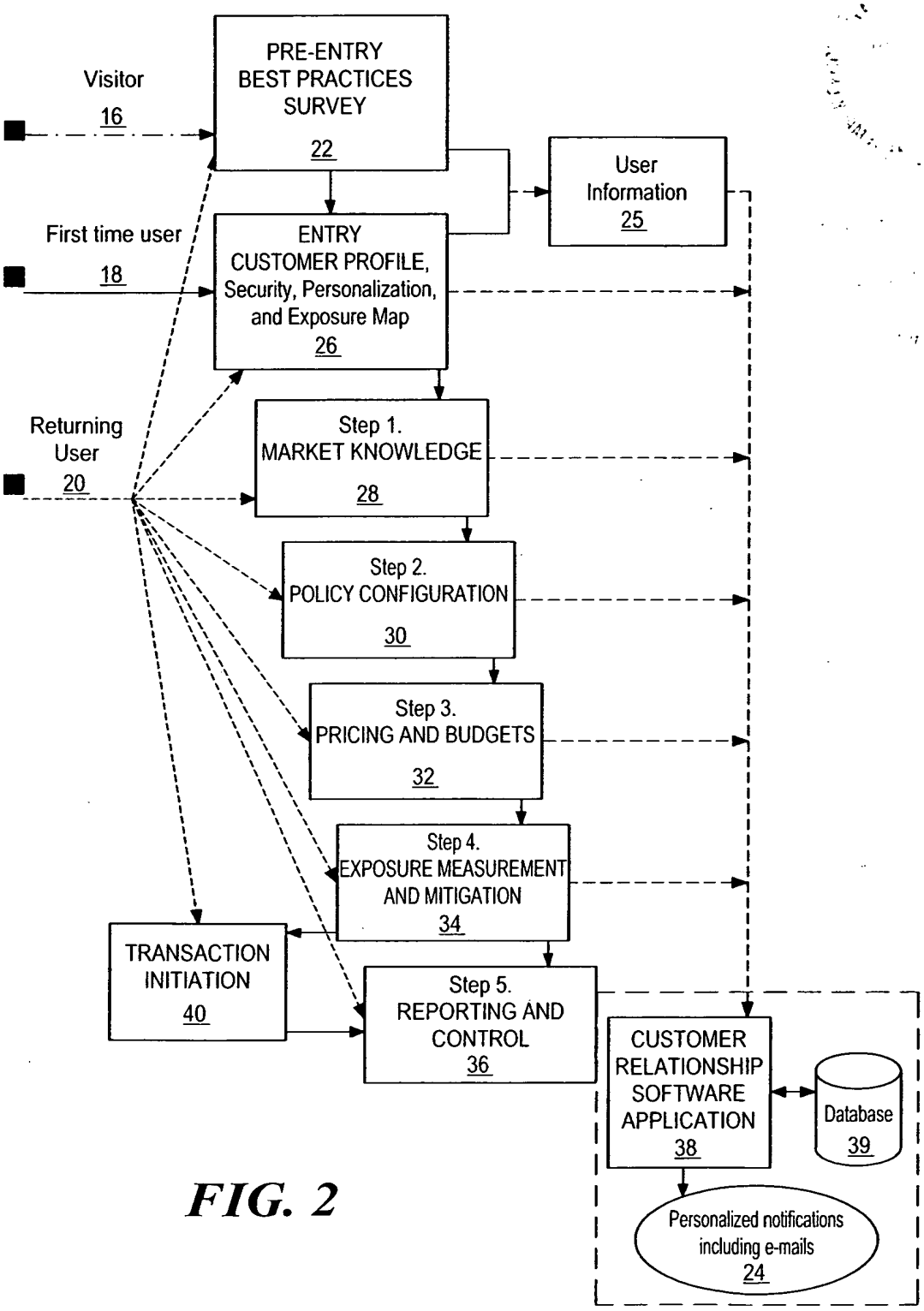
Visitor
16
First time user
18
Returning
User
20
PRE-ENTRY
BEST PRACTICES
SURVEY
22
User
Information
25
ENTRY
CUSTOMER PROFILE,
Security, Personalization,
and Exposure Map
26
Step 1.
MARKET KNOWLEDGE
28
Step 2.
POLICY CONFIGURATION
30
Step 3.
PRICING AND BUDGETS
32
Step 4.
EXPOSURE MEASUREMENT
AND MITIGATION
34
TRANSACTION
INITIATION
40
Step 5.
REPORTING AND
CONTROL
36
CUSTOMER
RELATIONSHIP
SOFTWARE
APPLICATION
38
Database
39
Personalized notifications
including e-mails
24

FIG. 2

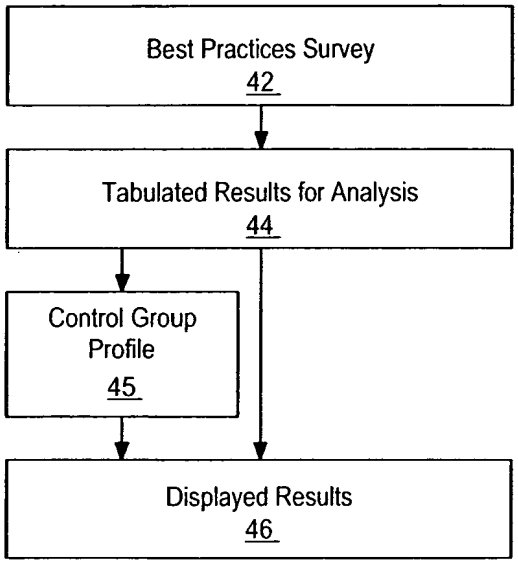
Best Practices Survey
42
Tabulated Results for Analysis
44
Control Group
Profile
45
Displayed Results
46

FIG. 3

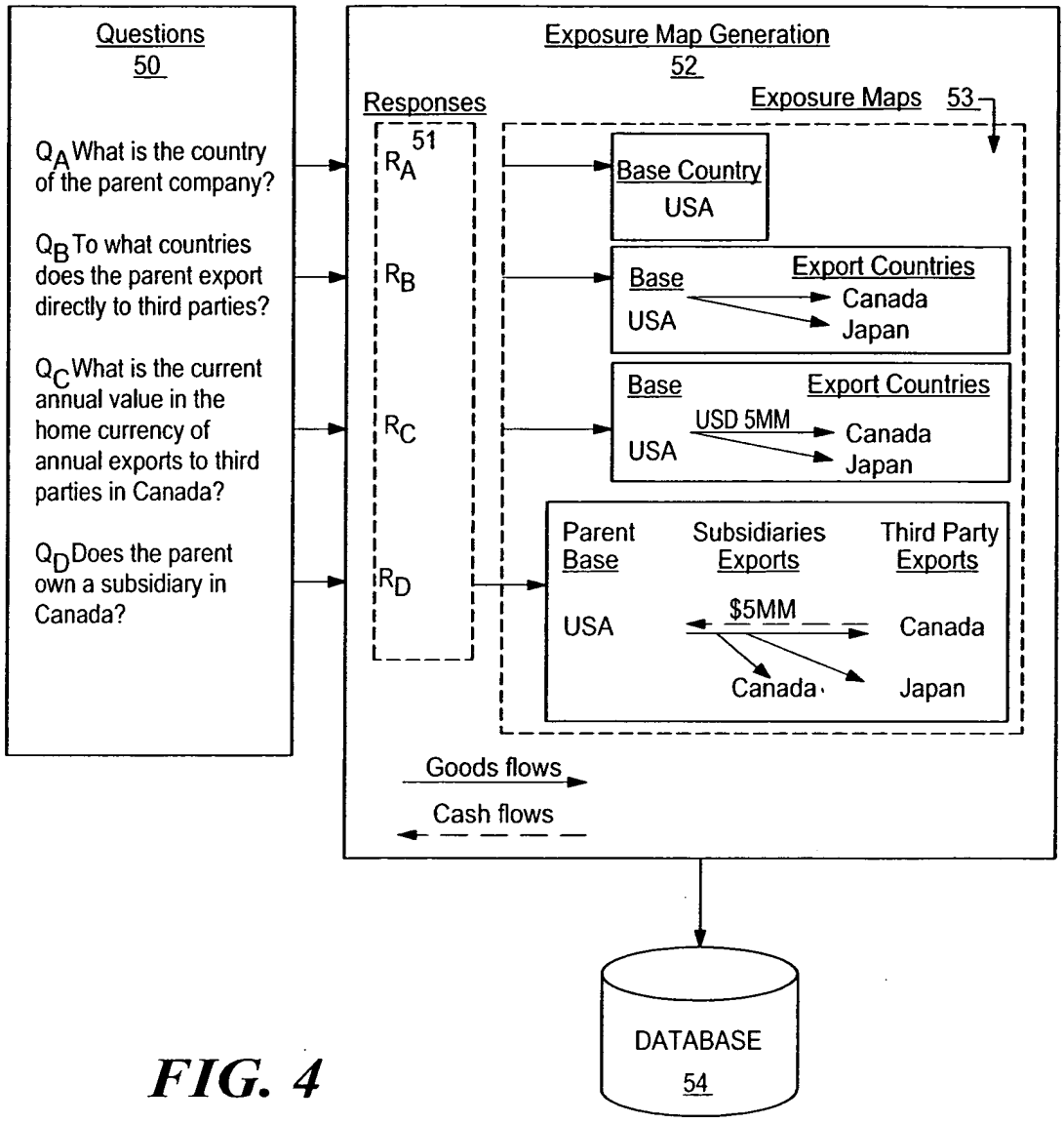
Questions
50
Q_A What is the country of the parent company?
Q_B To what countries does the parent export directly to third parties?
Q_C What is the current annual value in the home currency of annual exports to third parties in Canada?
Q_D Does the parent own a subsidiary in Canada?
Exposure Map Generation
52
Responses
51
R_A
R_B
R_C
R_D
Exposure Maps 53
Base Country
USA
Base
USA
Export Countries
Canada
Japan
Base
USA
Export Countries
USD 5MM
Canada
Japan
Parent Base
Subsidiaries Exports
Third Party Exports
USA
$5MM
Canada
Canada
Japan
Goods flows
Cash flows
DATABASE
54

FIG. 4

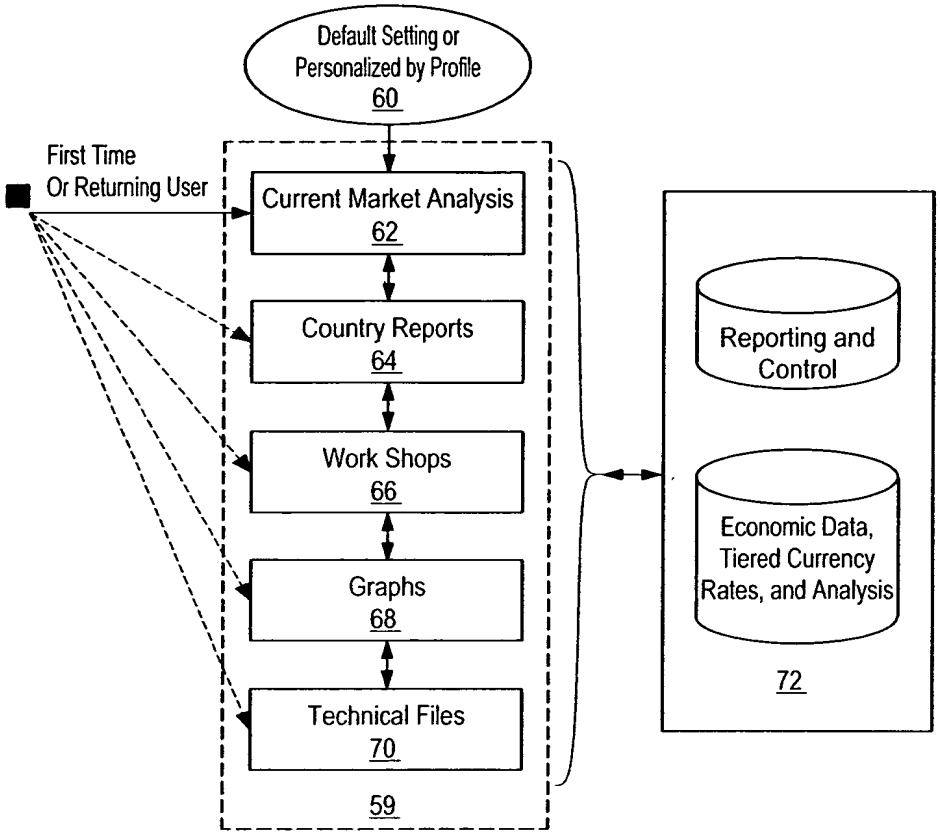
Default Setting or
Personalized by Profile
60
First Time
Or Returning User
Current Market Analysis
62
Country Reports
64
Work Shops
66
Graphs
68
Technical Files
70
59
Reporting and
Control
Economic Data,
Tiered Currency
Rates, and Analysis
72

FIG. 5

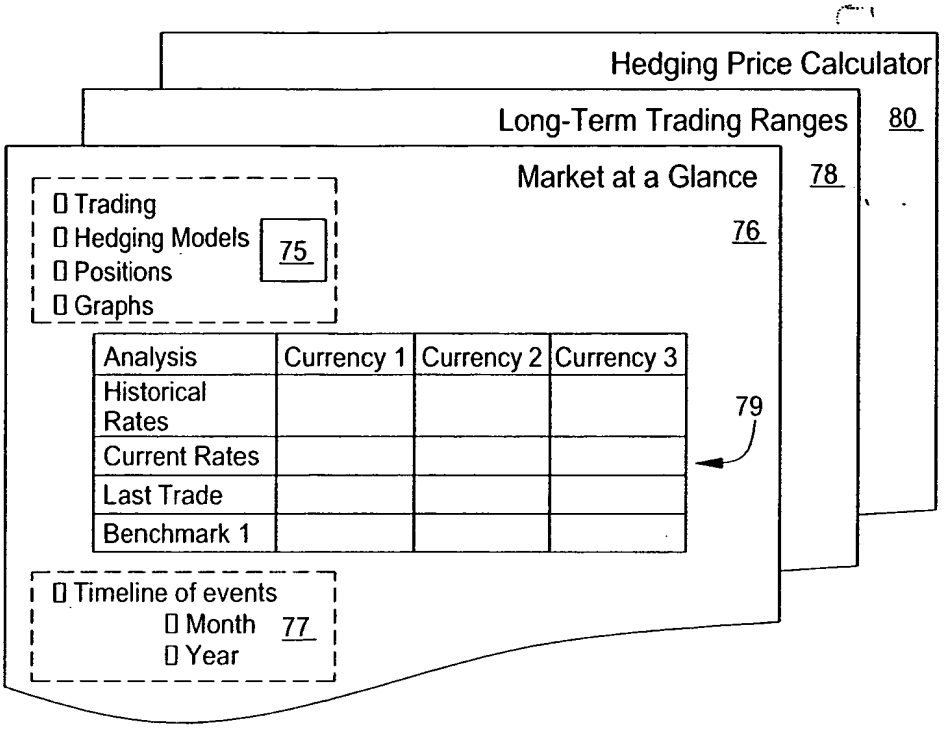
Hedging Price Calculator
Long-Term Trading Ranges
80
Market at a Glance
78
76
Trading
Hedging Models
Positions
Graphs
75
Analysis
Currency 1
Currency 2
Currency 3
Historical Rates
Current Rates
Last Trade
Benchmark 1
79
Timeline of events
Month
Year
77

FIG. 6

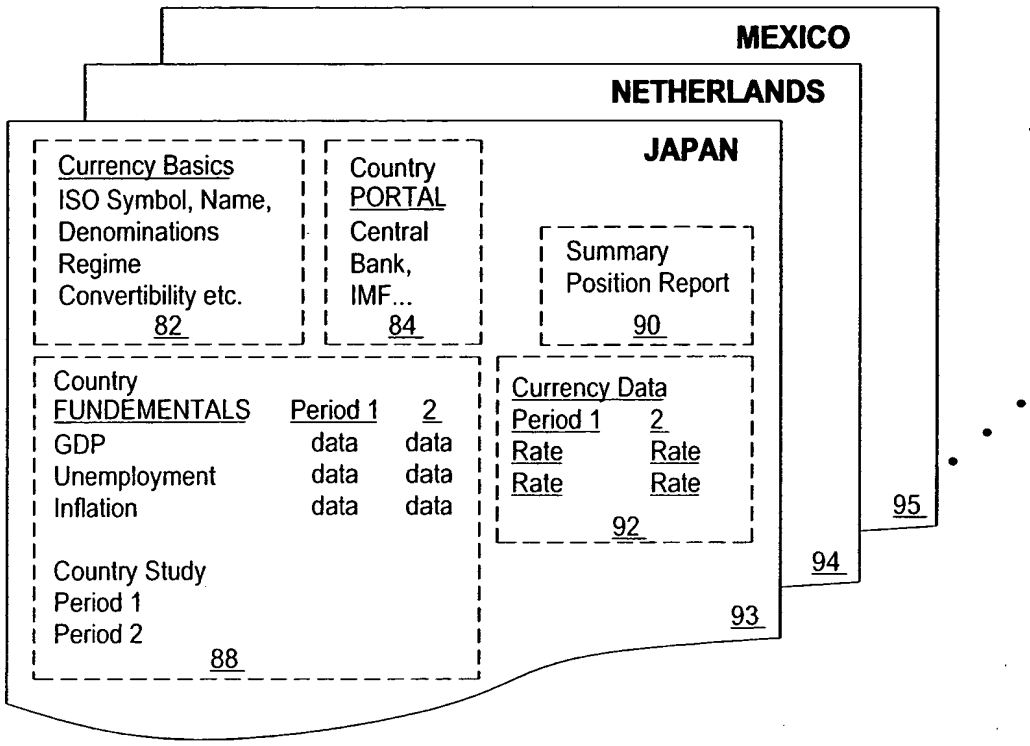
MEXICO
NETHERLANDS
JAPAN
Currency Basics
ISO Symbol, Name,
Denominations
Regime
Convertibility etc.
82
Country
PORTAL
Central
Bank,
IMF...
84
Summary
Position Report
90
Country
FUNDEMENTALS
Period 1
2
GDP
data
data
Unemployment
data
data
Inflation
data
data
Country Study
Period 1
Period 2
88
Currency Data
Period 1
2
Rate
Rate
Rate
Rate
92
95
94
93

FIG. 7

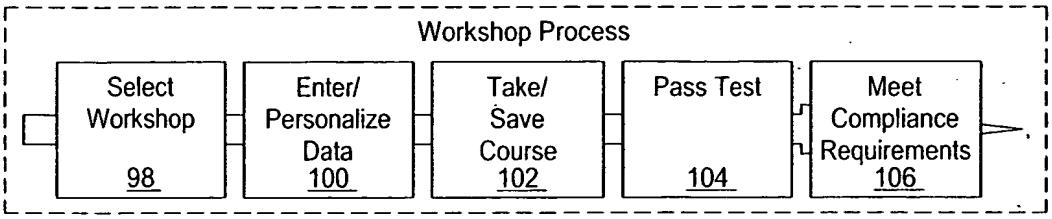
Workshop Process
Select Workshop 98
Enter/ Personalize Data 100
Take/ Save Course 102
Pass Test 104
Meet Compliance Requirements 106

FIG. 8

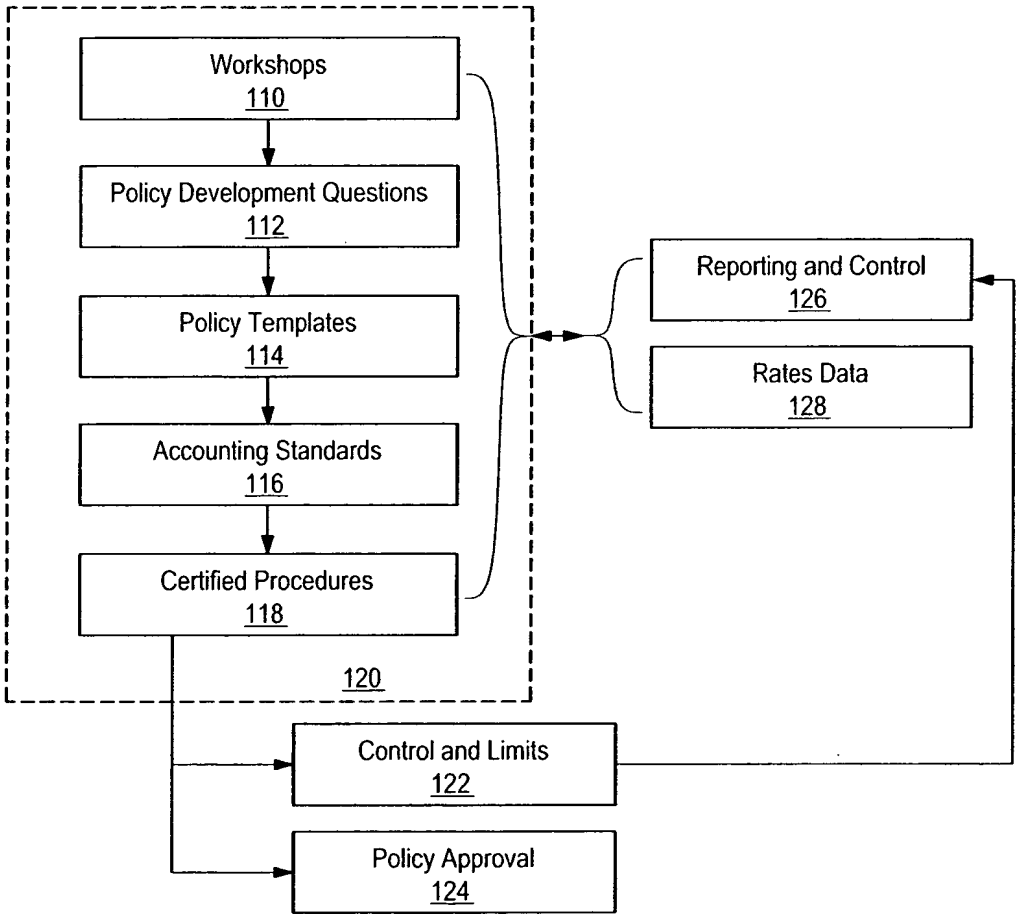
Workshops 110
Policy Development Questions 112
Policy Templates 114
Accounting Standards 116
Certified Procedures 118
120
Reporting and Control 126
Rates Data 128
Control and Limits 122
Policy Approval 124

FIG. 9

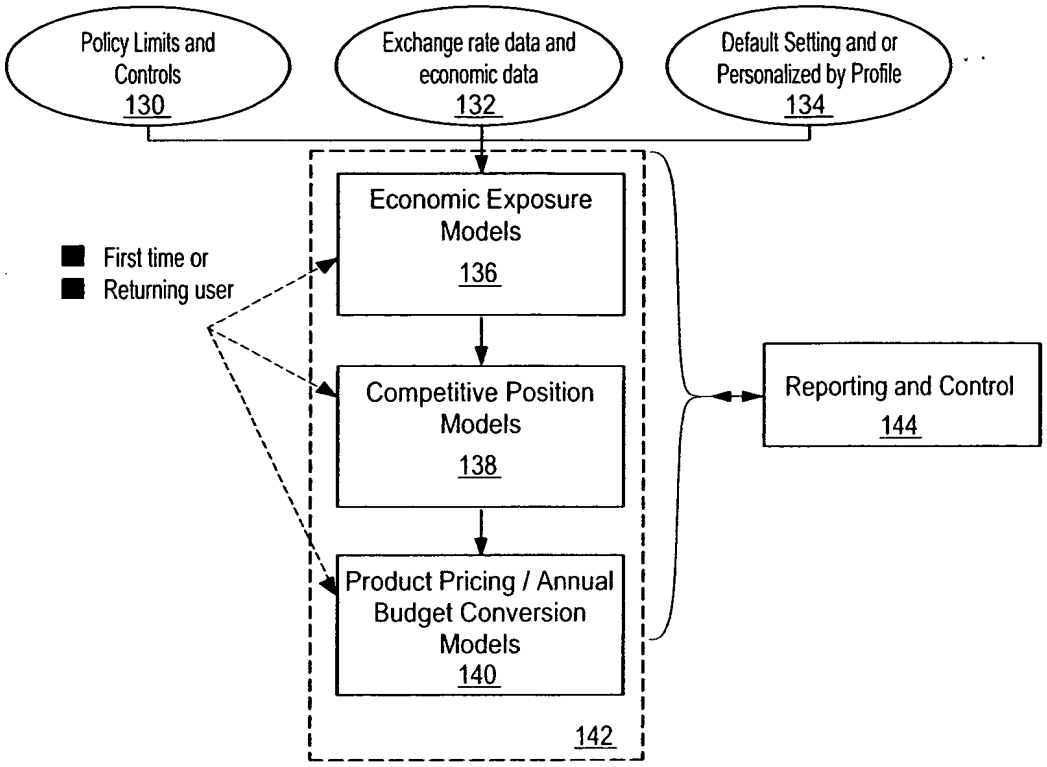
Policy Limits and Controls
130
Exchange rate data and economic data
132
Default Setting and or Personalized by Profile
134
First time or
Returning user
Economic Exposure Models
136
Competitive Position Models
138
Product Pricing / Annual Budget Conversion Models
140
142
Reporting and Control
144

FIG. 10

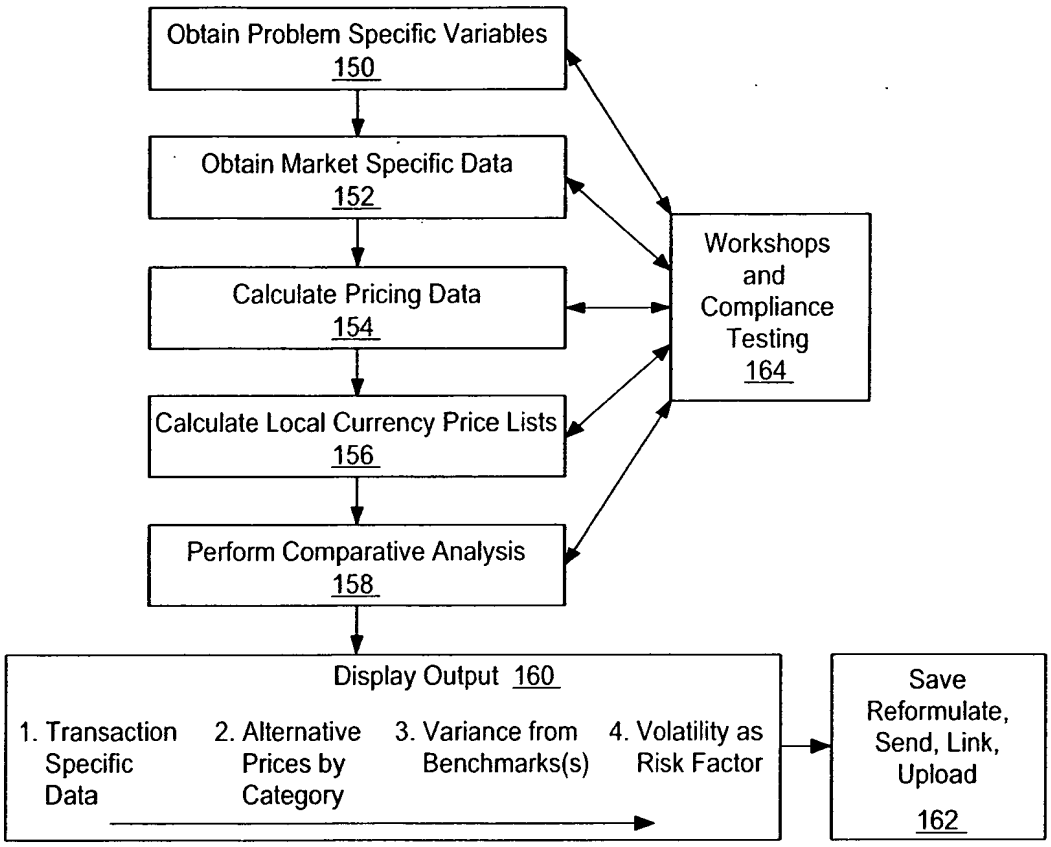
Obtain Problem Specific Variables
150
Obtain Market Specific Data
152
Calculate Pricing Data
154
Calculate Local Currency Price Lists
156
Perform Comparative Analysis
158
Workshops and Compliance Testing
164
Display Output 160
1. Transaction Specific Data
2. Alternative Prices by Category
3. Variance from Benchmarks(s)
4. Volatility as Risk Factor
Save Reformulate, Send, Link, Upload
162

FIG. 11

Select: 1 transaction, set of transactions, budget...

Option Number 166	Seller's Price in Base Currency (USD) 168	Buyer's Currency Analysis (JPY) 170	Exchange Rate(s) 172	Buyer's Equilavant Price in Foreign Currency 174	Buyer's Equivalent Price Variance 1 from Benchmark 176	Buyer's Equivalent Price Variance 2 from Benchmark 178
1a	Value(s)	JPY price at historical rate for Period 1	Rate	Value(s)	Value(s)	Volatility
1b	Value(s)	JPY price at historical rate for Period 2	Rate	Value(s)	Value(s)	Volatility
2a	Value(s)	JPY price at spot rate today 180	Rate	Value(s)	Value(s)	Volatility
2b	Value(s)	JPY price at forward rate for Period 1	Rate	Value(s)	Value(s)	Volatility
3a	Value(s)	JPY price at forward rate for Period 2	Rate	Value(s)	Value(s)	Volatility
4a	Value(s)	JPY price at forecast rate for Period 1	Rate	Value(s)	Value(s)	Volatility
4b	Value(s)	JPY price at forecast rate for Period 2	Rate	Value(s)	Value(s)	Volatility

...

- ☐ Save as
- ☐ Mark-to-Market
- ☐ Upload to (drop down menu including: Knowledge Engine components, Risk Measurement components...)
- ☐ e-Mail

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Select: graph table

FIG. 12

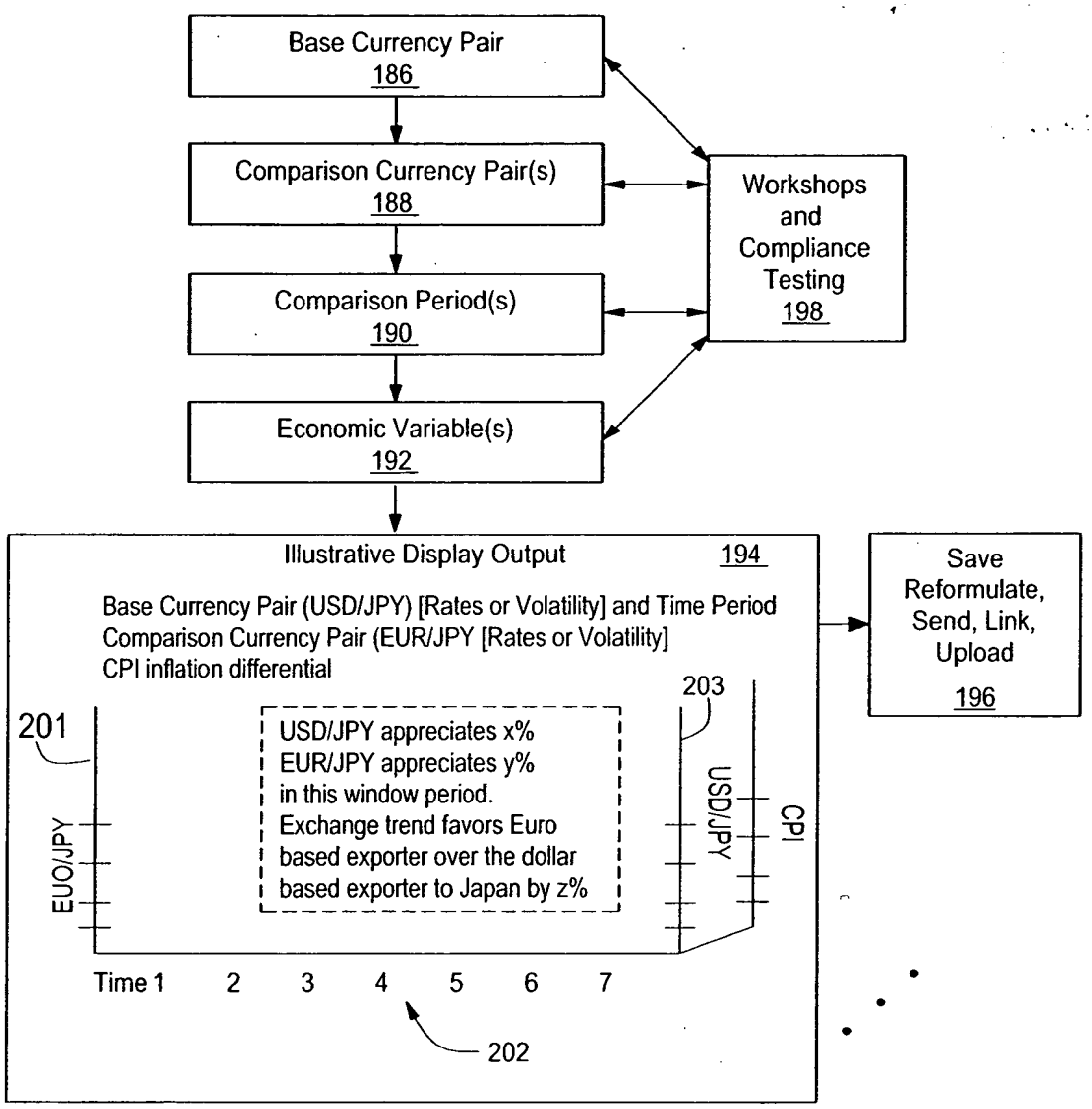
Base Currency Pair
186
Comparison Currency Pair(s)
188
Comparison Period(s)
190
Economic Variable(s)
192
Workshops and Compliance Testing
198
Illustrative Display Output
194
Base Currency Pair (USD/JPY) [Rates or Volatility] and Time Period
Comparison Currency Pair (EUR/JPY [Rates or Volatility]
CPI inflation differential
201
203
USD/JPY appreciates x%
EUR/JPY appreciates y%
in this window period.
Exchange trend favors Euro
based exporter over the dollar
based exporter to Japan by z%
EUO/JPY
USD/JPY
CPI
Time 1 2 3 4 5 6 7
202
Save Reformulate, Send, Link, Upload
196

FIG. 13

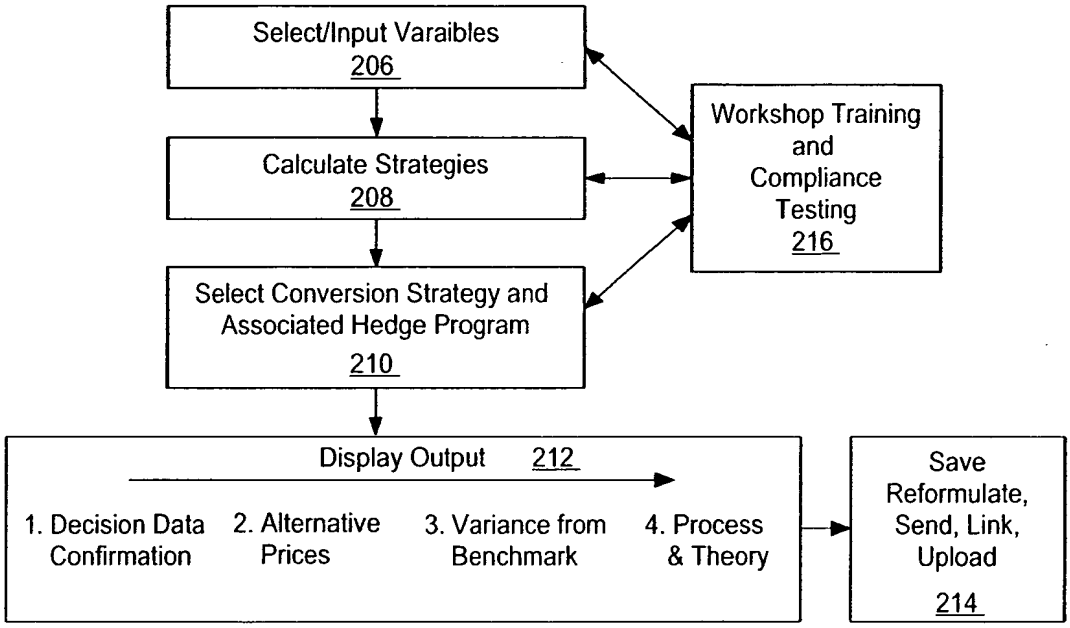
Select/Input Varaibles
206
Calculate Strategies
208
Select Conversion Strategy and Associated Hedge Program
210
Workshop Training and Compliance Testing
216
Display Output 212
1. Decision Data Confirmation
2. Alternative Prices
3. Variance from Benchmark
4. Process & Theory
Save Reformulate, Send, Link, Upload
214

FIG. 14

Periods (Months /Days) 220	Base Currency Amounts 222	Spot 223	Forward Rates 224	Option Costs at Selected Strike Prices 225	Premiums In base currency 226	Opportunity Cost Rates 227	Break Even Rates 228	Forecast Rates(s) 229
Today		Rate						
1	Value		Rate	%	Value	Rate	Rate	Rate
2	Value		Rate	%	Value	Rate	Rate	Rate
3	Value		Rate	%	Value	Rate	Rate	Rate
4	Value		Rate	%	Value	Rate	Rate	Rate
5	Value		Rate	%	Value	Rate	Rate	Rate

Select (conversion strategy and benchmark)

▯ Market at a glance
▯ Workshop

Illustrative Display Screen Calculations for Step 208 (Fig. 14)

Conversion Strategy Selected: 3. Today's weighted average forward rate. 231			
Benchmark		Spot rate	232
Conversion Rate		Weighted forward average (224)	233
Price P1		Value	
Price P2		Value	
Price P3		Value	
Price P4		Value	
Total Price		Value	
Variance to Benchmark of Total		Variance Value	

...

▯ Workshop
▯ Upload, save, e-mail...

Illustrative Display Screen Calculations for Step 210 (Fig. 14)

234

FIG. 15

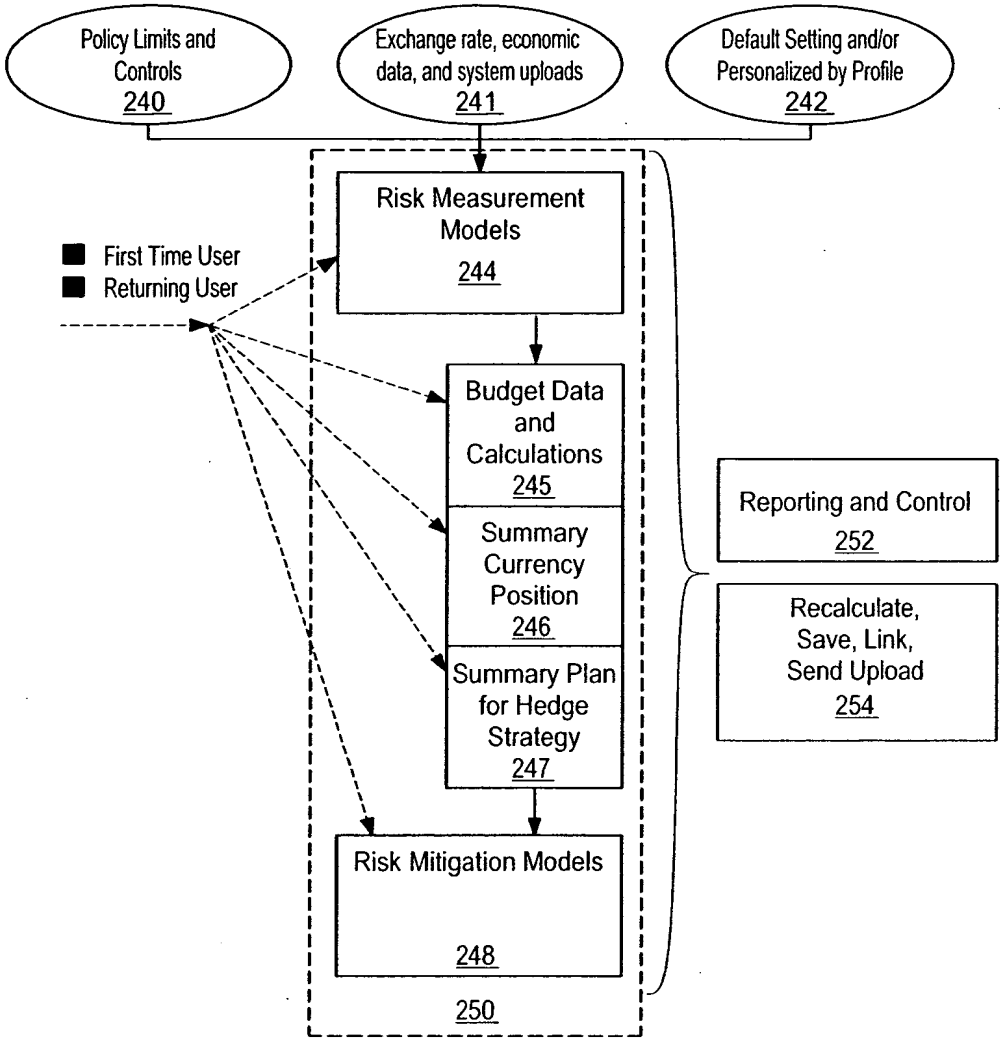
Policy Limits and Controls
240
Exchange rate, economic data, and system uploads
241
Default Setting and/or Personalized by Profile
242
First Time User
Returning User
Risk Measurement Models
244
Budget Data and Calculations
245
Summary Currency Position
246
Summary Plan for Hedge Strategy
247
Risk Mitigation Models
248
250
Reporting and Control
252
Recalculate, Save, Link, Send Upload
254

FIG. 16

Country 261	Category 262	Month 1 Budget (Now) 263	Actual (Now) 264	Variance A to B (Now) 265	Month 2 A V 266	Month 3 A V··· 267	Year Total A V 268
Japan 270	Budget Purchase(Sales) in JPY	Value	Value	Value	Value	Value	Value
271	Budgeted Exchange Rate(s)	Rate	Rate	Rate	Rate	Rate	Rate
272	Current Spot Rate	Rate	Rate	Rate	Rate	Rate	Rate
273	Current Hedge Rate(s)	Rate	Rate	Rate	Rate	Rate	Rate
274	Cost of Hedge(s)	Value	Value	Value	Value	Value	Value
275	Variance from Budget	Value	Value	Value	Value	Value	Value
276	Base Currency Scenario 1	Rate	Rate	Rate	Rate	Rate	Rate
277	Gain/(Loss) from Unhedged Position	Value	Value	Value	Value	Value	Value
278	Variance from Budget	Value	Value	Value	Value	Value	Value

Illustrative Output of Budget Data and Calculations 280

		Budgeted Rate			Market Rates			Benchmark(s) Rates or Volatility		
Currency 281	Position in Foreign Currency (FC) 282	Budget Rate 283	Base Currency (BC) Equivalent 284		Current Rate 285	Base Currency Equivalent 286	BC Differential Actual to Budget 287	Benchmark 1 Exchange Rate 288	Base Currency Equivalent 289	BC Differential Benchmark to Budget 290
JPY 291										
TOTAL EXPOSURE BC 292										
TAX RATE										
TOTAL EXPOSURE BX AFTER TAX 294										

Illustrative Output of Summary Currency Position 295

Currency 298	Actual			Plan		
	Aggregate Currency Position(s) 299	Existing Hedge Position(s) 300	Current Open Position 301	Hedge Now at spot, forward rate(s), option strike price(s) 302	Hedge Time Designated at spot, forward rate(s), option strike price(s) 303	Do Not Hedge, stop loss rate(s) of 304
JPY 305						
GBP						

Illustrative Output of Summary Plan for Hedging Strategy 306

FIG. 17

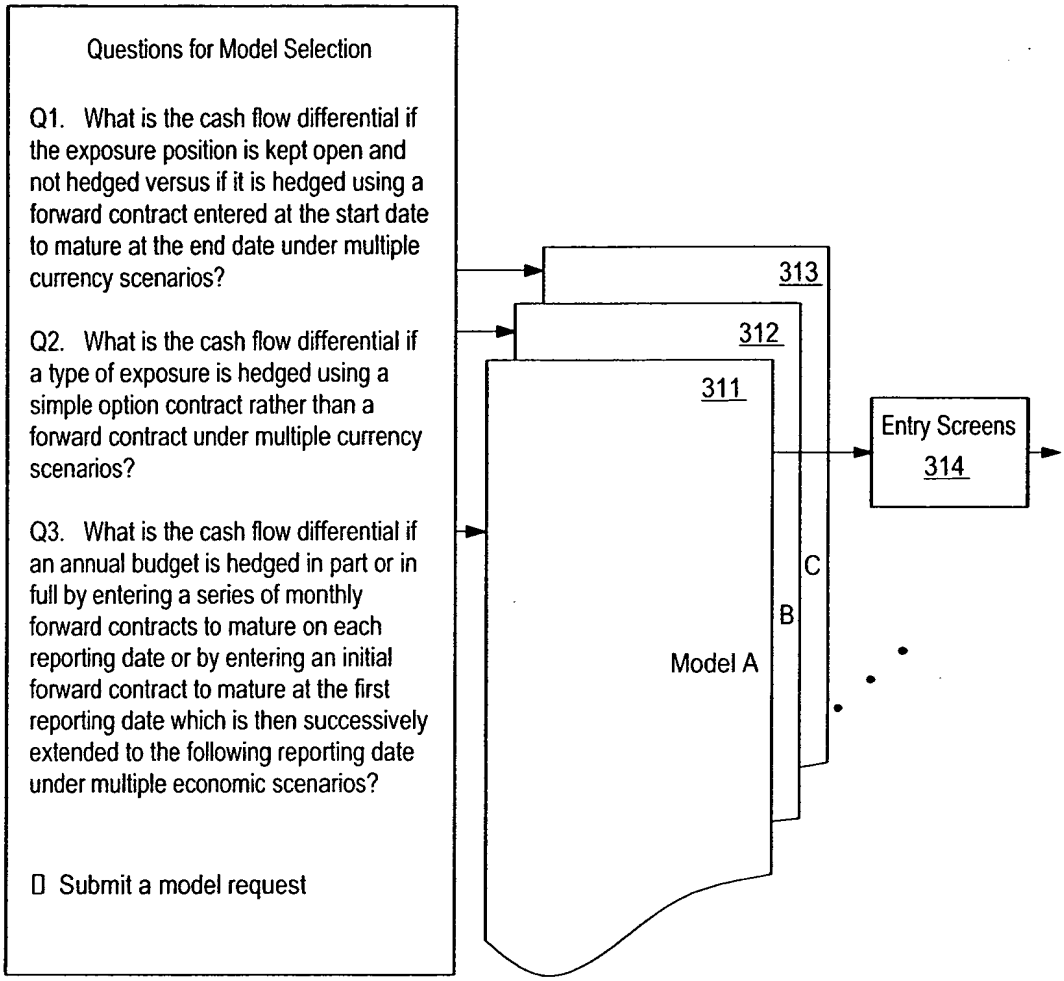
Questions for Model Selection
Q1. What is the cash flow differential if the exposure position is kept open and not hedged versus if it is hedged using a forward contract entered at the start date to mature at the end date under multiple currency scenarios?
Q2. What is the cash flow differential if a type of exposure is hedged using a simple option contract rather than a forward contract under multiple currency scenarios?
Q3. What is the cash flow differential if an annual budget is hedged in part or in full by entering a series of monthly forward contracts to mature on each reporting date or by entering an initial forward contract to mature at the first reporting date which is then successively extended to the following reporting date under multiple economic scenarios?
Submit a model request
313
312
311
Model A
B
C
Entry Screens
314

FIG. 18

Illustrative Appearence of Entry Screen Format 318

Title of Model: Cash Flow Comparisons by Hedge Strategy and Economic Scenario

Buy or Sell:
Foreign Currency:
Amount of Foreign Currency:
Base Currency:
Today's Date:
Transaction Start Date:
Settlement/Value Date:
Option Strike Price:

Comparisons to Show:
Spot Exchange Rate (USD/FC):
Forward Exchange Rate (USD/FC):
Loan/Deposit Rate (SUD/FC):
Premium Amount for American Style Option,
At-the-Money Options:
319 Out-of-the-Money Option:

Economic Scenario 1:
US Dollar Strengths to
320
Economic Scenario 2:
US Dollar Weakens to

Show Comparisons

324

TITLE and problem:
Confirmation of Data:
Base Currency
Foreign Currency
Buy/Sell
Begin date
Value Date, etc.

Illustrative Appearence of Output Screen Format 322

Select:
Display Summary A
Display Summary B

326

327
Coverage Periods:
— · — Spot
——— Forward

328 329 330

335
Matrix of Alternative Analysis:

	FC Amount	Rate	Base Equivalent	331 Process	332 Theory
Cash Flow: Same instrument, 2 Economic Scenarios:					
1. Spot Contract entered on 1/31/00 for value 2/2/00:					
Scenario A. Cash Flow if USD strengthens to USD 1.5000/GBP:	FC amount @ rate =		(base equivalent)	Process	Theory
Scenario B. Cash Flow if USD weakens to USD 1.000/GBP:	FC amount @ rate =		(base equivalent)	Description	Behind
Differential: Cash Flow, Scenario A versus Scenario B:			base equivalent		Choice
2. Forward Contract entered on 8/8/99 for value 2/2/00:					
Scenario A. Cash Flow if USD strengthens to USD 1.5000/GBP:	FC amount @ rate =		(base equivalent)	Process	Theory
Scenario B Cash Flow if USD weakens to USD 1.7000/GBP:	FC amount @ rate =		(base equivalent)	Description	Behind
Differential: Cash Flow, Scenario A versus Scenario B:			base equivalent		
Differential: Cash Flow, Scenario 1A to 2A:			base equivalent	Process	Theory
Differential: Cash Flow, Scenario 1B to 2B:			base equivalent	Process	Theory

334	Views of Market	Instruments	Strategies	Arbitrage Opportunities	Interest Rate Differentials	Types of Exposures
Views of Market						
Instruments						
Strategies						
Arbitrage Opportunities						
Interest Rate Differentials						
Types of Exposures						

FIG. 19

PRODUCT CHOICE: 340

☐Spot types ☐FORWARD types ☐SWAP types ☐OPTION types ☐LOAN types ☐DEPOSIT types

	Illustrative Categories	Illustrative Detail 352		
1	Trader Reference 341	Number	Trade Date	Time
2	Status 342	New	Order	Approve
3	Hedge Activity 342	Link Exposure 1 to Trade	Link 2	Link 3...
4	Settlement Basis 344	Credit	Split Date	Net Base
5	Requested Value Date(s) 345	Date 1	Date 2	Date 3...
6	Ordering Customer 346	Template 1	Template 2	Template 3...
7	Beneficiary(s) 347	Ben 1	Ben 2	Ben 3...
8	Comments 348	Open	Open	Open
9	Beneficiary's Bank(s) 349	Template 1	Tem 2	Tem 3...
10	Transaction Specification 350	Currency Pair	Transaction Amount	Rate Choice
11	Transaction Status 351	Hold	Approve	Cancel

System: 353

Submit 355

☐12. Review Order, Credit Availabilty
☐13. Submit Order with Testing
☐14. Contract Number Assigned if authenticated
☐15. Revise, Reject Message if failed
☐16. Confirmation of Trade if authenticated
☐17. Report of failed and authenticated

Illustrative Transaction Entry Screen 354

FIG. 20

Counterparty, Currency and Country Summary Position Report
Today's Date

360

Select: Counterparty, Currency, Country Detail

Currency Risk Report

1 2	3	4	5	6	7	8	9	10	11	12	Currency Risk 366		Counterparty Risk 367		Country Risk 368	
											Limit	Differential	Limit	Differential	Limit	Differential
JPY 370										Exposure Amount						
EUR										Amount						
GBP										Amount						
Total Base Currency Equivalent 369										Amount		$		$		$
Tax Rate 50%										Amount		$		$		$

☐ Policy Template
☐ Transaction
☐ Workshop

Column Heading for Currency Risk Detail Selection:

1. Currency Name(s)
2. Counterparty Name(s)
3. Account Balance(s)
4. Other Balance(s)
5. Total Receivables
6. Total Payables
7. Currency Exposure before Hedge
8. Currency Hedges
9. Currency Hedge Rate (weighted average)
10. Currency Exposure Residual
11. Current Exchange rate
12. Current Base Currency Value of Residual Exposure

FIG. 21

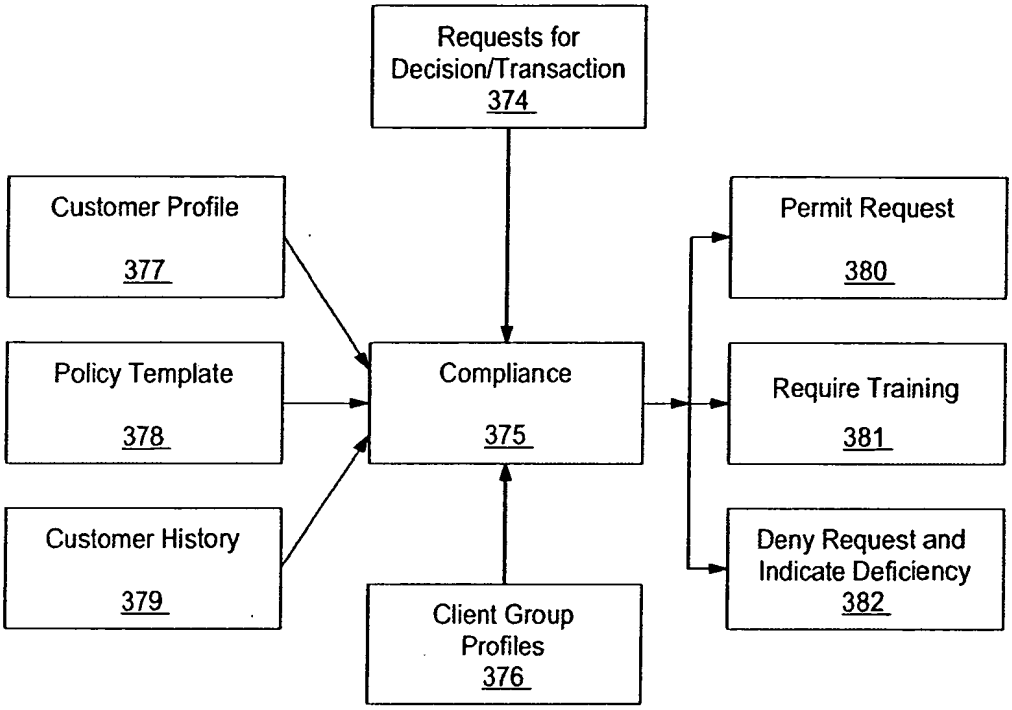
Requests for Decision/Transaction 374
Customer Profile 377
Policy Template 378
Customer History 379
Compliance 375
Client Group Profiles 376
Permit Request 380
Require Training 381
Deny Request and Indicate Deficiency 382

FIG. 22

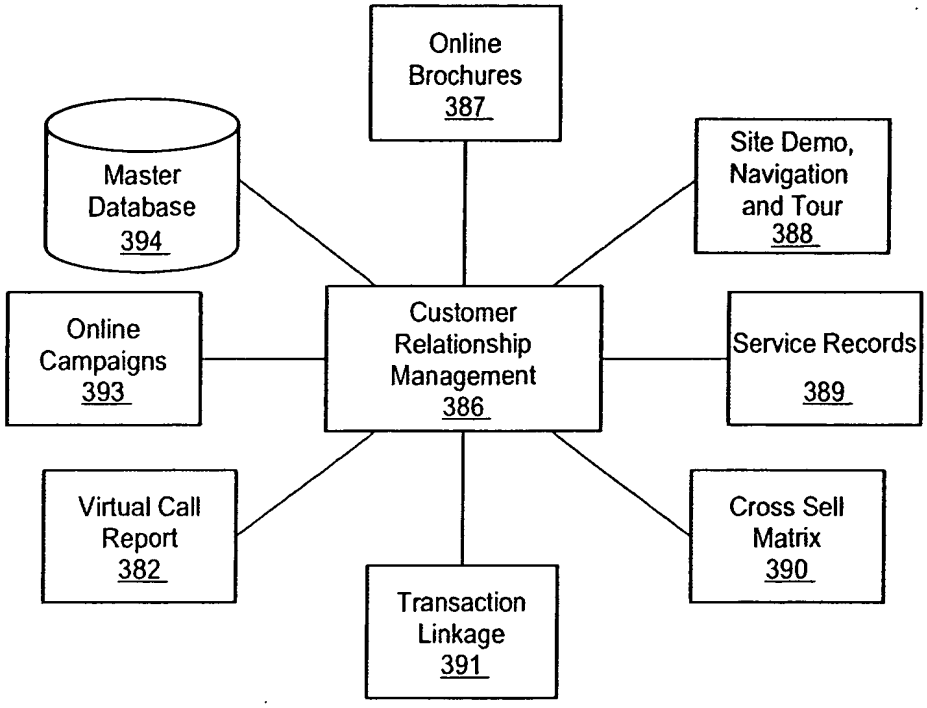
Online Brochures 387
Master Database 394
Site Demo, Navigation and Tour 388
Online Campaigns 393
Customer Relationship Management 386
Service Records 389
Virtual Call Report 382
Cross Sell Matrix 390
Transaction Linkage 391

FIG. 23

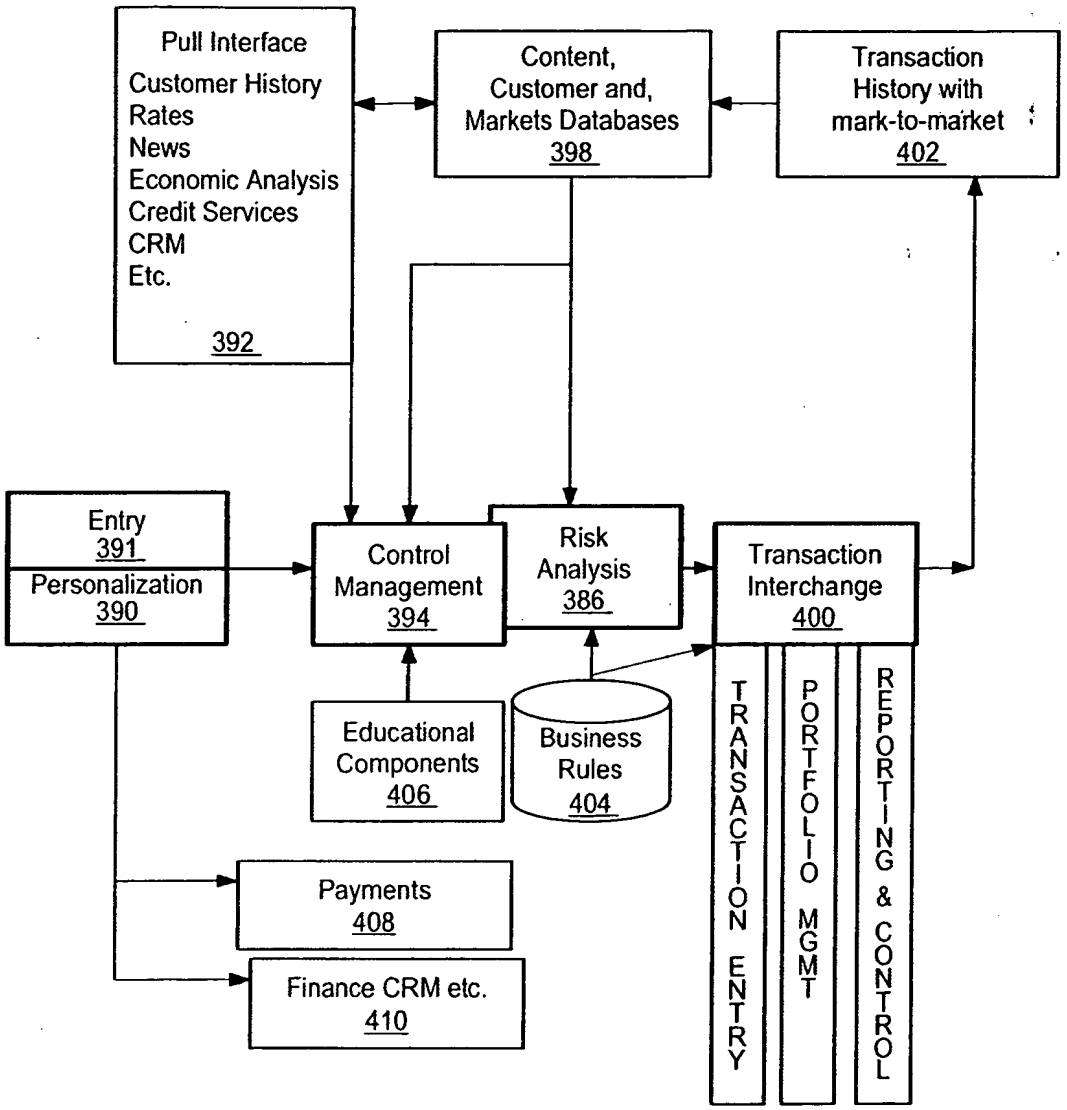
Pull Interface
Customer History
Rates
News
Economic Analysis
Credit Services
CRM
Etc.
392
Content, Customer and, Markets Databases 398
Transaction History with mark-to-market 402
Entry 391
Personalization 390
Control Management 394
Risk Analysis 386
Transaction Interchange 400
Educational Components 406
Business Rules 404
Payments 408
Finance CRM etc. 410
TRANSACTION ENTRY
PORTFOLIO MGMT
REPORTING & CONTROL

FIG. 24

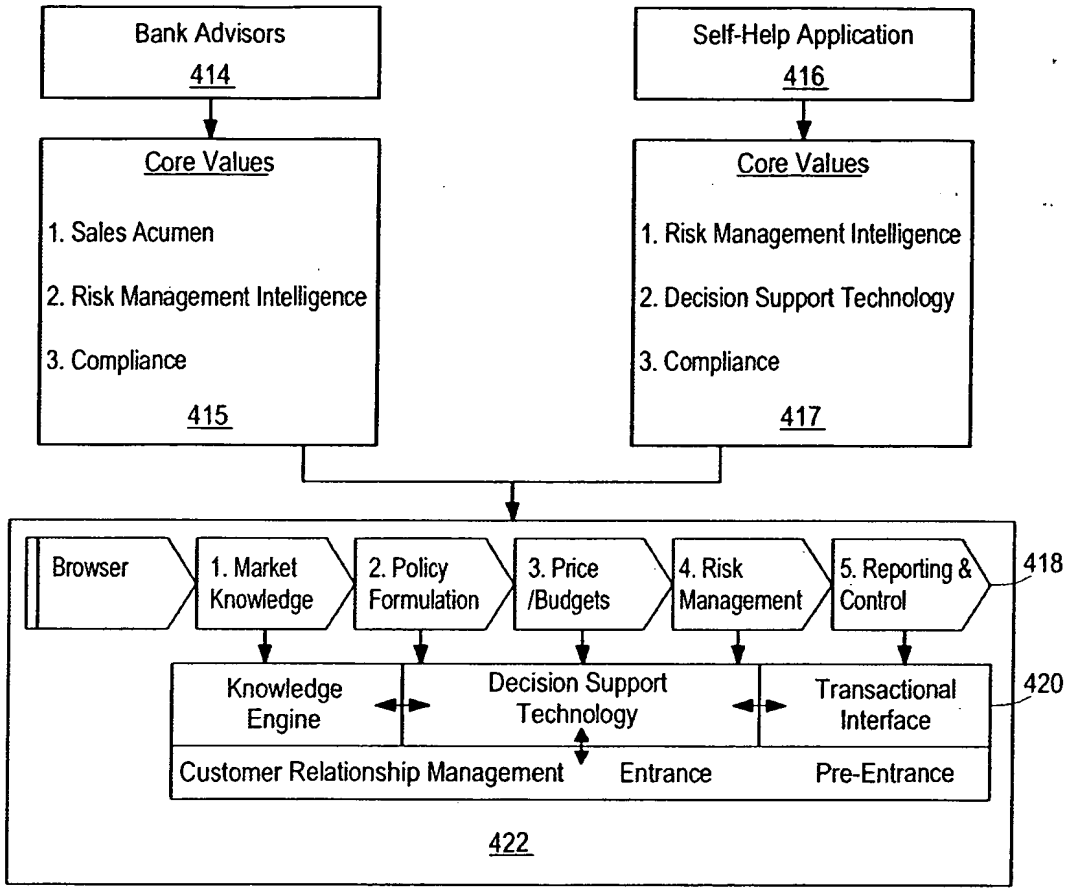
Bank Advisors
414
Core Values
1. Sales Acumen
2. Risk Management Intelligence
3. Compliance
415
Self-Help Application
416
Core Values
1. Risk Management Intelligence
2. Decision Support Technology
3. Compliance
417
Browser
1. Market Knowledge
2. Policy Formulation
3. Price /Budgets
4. Risk Management
5. Reporting & Control
418
Knowledge Engine
Decision Support Technology
Transactional Interface
420
Customer Relationship Management
Entrance
Pre-Entrance
422

FIG. 25